

ENVIRONMENTAL IMPACT SCREENING COMMITTEE

FACSIM	ILE TRANSMISSION	COVER SHI	SET 1A65
DATE OF TRANSMISSION:	December 14, 2000		ID M2000080054
MESSAGE TO:	Kevin Williams		MATTER RESONAGES 2001 WATTER RESONAGES 2001 VELOWKNIFE, NT
COMPANY:	Chevron Canada Resource	es	WATER RESOURCES 2001
FAX NUMBER:	(403) 234-5152		
c.c.	Carol Arey Terry Baker Richard Binder Sevn Bohnet, Rudy Cockney -Akli -NEI -NEI -NEI -NEI -NEI -NEI -NEI -NEI	, Tuktoyaktuk avik HTC 3, Calgary vik HTC ter Resources Div ND, Inuvik toyaktuk HTC	ision, DIAND, Yellowknife
TOTAL NUMBER OF PAGES	19		an
OPERATOR:	Agnes Noksana		W. NOS. OCIG File- N7-1-1K5
MESSAGE FROM:	LINDA GRAF RESOURCE PERSON ENVIRONMENTAL IM	PACT SCREENI	
E-MAIL ADDRESS:	eisceirb@jointscc.nt.ca		
ORIGINALS:	To be mailed Not to	be mailed *	
MESSAGE:			
Mackenzie Delta Inuvik Block 1	& 2 Winter Seismic Program	m DIAND LUP N	2000B0054, ILA009B51
		+	

The Joint Secretariat - Inuvialuit Renewable Resource Committees

P.O. Box 2120 Inuvik, Northwest Territories, Canada XOE 0T0 tel: (867) 777-2828 fax: (867) 777-2610 email: eisceirb@jointsec.nt.ca

Job-428



ENVIRONMENTAL IMPACT SCREENING COMMITTEE

14 December 2000

Submission Number: 10/00-02

Kevin William Geophysicist Chevron Canada Resources 500 - 5th Avenue SW Calgary AB TTP 0L7

Dear Mr. Williams:

Mackenzie Delta Inuvik Block 1 & 2 Winter Spismic Program DIAND LUP N2000B0054, ILA00YB51

During a meeting held 4-6 December 2000, the Environmental Impact Screening Committee (EISC) screened the above-noted project description. Based on the information provided, and an amendment of the period of permit, the EISC decided that the development will have no significant negative impact on the environment or Inuvialuit wildlife harvesting in the Inuvialuit Settlement Region [IFA Section 11.(13)(a)]. Copies of the decision and amendment have been attached.

For the record, in a letter dated 25 October 2000 the Inuvialuit Land Administration referred that portion of the above-noted development on Inuvialuit private lands to the EISC for environmental screening pursuant to subsection 11.(1)(c) of the Inuvialuit Final Agreement.

Subject to a final decision by the licensing or permitting authorities, the issuance of appropriate permits and approvals may proceed.

In rendering its decision, the EISC noted the following:

- The EISC understands that Schlumberger will develop a bear protocol in concert with the Department of Resources, Wildlife and Economic Development which will then be provided to the EISC.
- It would be beneficial if the environmental and wildlife monitors had access to 1:50 000 maps so that they could mark the location of any disturbances or incidents that occur.

The Joint Secretariat - Inuvialuit Renewable Resource Committees P.O. Box 2120 Inuvik, Northwest Territories, Canada XOE 0T0 tel: (867) 777-2828 fax: (867) 777-2610 email: cisceirb@jointsec.nt.ca Subsequent to the EISC meeting, Inuvialuit Environmental Inc. informed the EISC that the seismic line detail provided in the project description was incorrect and they provided the EISC with the correct figures. Their letter is attached.

The EISC noted that Chevron has received comments from the Department of Fisheries and Oceans, the Inuvialuit Game Council, and the Inuvik Hunters and Trappers Committee regarding the proposed development. In addition, the EISC wishes to provide you with comments from the Prince of Wales Northern Heritage Centre, the Environmental Protection Branch, the Fisheries Joint Management Committee, and the Wildlife Management Advisory Council (NWT) for your consideration.

Sincerely,

Secretary

cc: I

Hans Arends, ILA, Tuktoyaktuk

Carol Arcy, Aklavik HTC Terry Baker, NEB, Calgary

Richard Binder, Inuvik HTC

Sevn Bohnet, Water Resources Division, DIAND, Yellowknife

Rudy Cockney, DIAND, Inuvik

Frank Poklak, Tuktoyaktuk HTC

Encl. (7)

EISC Decision

Letter from IEI, Amendment of the Period of Permit, Dated 29 November 2000

Letter from TEI, Correction of seismic line detail, Dated 7 December 2000

Letter from the PWNHC, Dated 10 November 2000

Letter from EPB, Dated 26 November 2000

Letter from the FJMC, Dated 1 December 2000

Letter from the WMAC (NWI), Dated 4 December 2000



ENVIRONMENTAL IMPACT SCREENING COMMITTEE

SUBMISSION NUMBER: 10/00-02

NAME OF PROPONENT:

Chevron Canada Resources, Mr. Ken Williams

PROJECT DESCRIPTION:

Mackenzie Delta Inuvik Block 1 and 2 Winter Seismic

Program

DECISION OF THE SCREENING PANEL (circled):

- The development will have no such significant negative impact and may proceed 1. without further environmental impact assessment and review under the Innvialuit Final Agreement. [IFA s. 11. (13) (a)]
 - The development could have significant negative environmental impact and is subject 2. to assessment and review under the Inuvialuit Final Agreement. [IFA s. 11. (13) (b)]

The development proposal has deficiencies of a nature that warrant a termination of 3. its consideration and the submission of another project description. [IFA s. 11. (13) (c)] Signed on the 6 day of DECEMBER , 2000. William Klassen, Chair · Billy Day, Inuviahit Member Canada Member (Vacant) · Alex Kaglik, knuvlaluit Member · Marsha Branigan, GNWT Member

Chuck Hubert, YTG Member

Fred Wolki, Inuvialuit Member



Inuvialuit Environmental Inc.

1338R - 36th Avenue NE Colgary, AB 72E 676 (403) 219-1259

Our File: 700-00 Via Fax

November 29, 2000

Indian and Northern Affairs Canada
Department of Indian Affairs and Northwest Development
P.O. Box 2100
Inuvik, Northwest Territories
X0E 1C0

Attention:

Mr. Rudy Cockney

District Manager, North Mackenzie District

Dear Mr. Cockney:

Re: Land Use Permit - Chevron Canada Resources Mackenzie Belta Inuvik Block 1 & 2 Winter Seismic Program.

This letter is submitted to Indian and Northern Affairs Canada (INAC) for approval as an amendment to the Application for Land Use Permit under review for the above referenced Project Description. The Chevron Canada Resources Mackenzie Delta Inuvik Block 1 & 2 Winter Scismic Program was submitted with an Application for Land Use Permit to INAC on October 22, 2000.

Item 16 of the Application for Land Use Permit requests a period of permit for two (2) years. However, the completion date is incorrectly specified as April 2001. The completion date should read <u>December 2002</u>.

If you have additional questions or comments, please to not hesitate to contact me at the above noted address, by relephone at (403) 291-0777 or via email at cpyc@sore.ca.

Sincerely,

INUVIAL HIT ENVIRONMENTAL INC.

Cynthis Pyc, M.Sc., P.Biol. Environmentel Biologist

Kevin Williams, Chevron, Linda Graf, EISC; Rick Turner, NEB; Hans Arends, ILA.

id u best

Our File: 700-00

Via Fax



Inuvialuit Environmental Inc.

1938R - 36th Avenue NE Colgory, AB T2E 616 (403) 219-1259

December 7, 2000

Environmental Impact Screening Committee P.O. Box 2120 Inuvik, NWT XOE 0T0

Attention:

Linda Graf

Secretary

Dear Ms. Graf:

Re: Proposed Chevron Canada Resources Mackenzie Delta Inuvik Block 1 & 2 Winter Seismic Program

The seismic line set details provided in Table 2 in the project description were incorrect. Corrections have been made and the corrected table is provided on the following page. The text references to the total linear kilometers of the program are also incorrect as they were derived from the original table. Please note that the total number of linear kilometers for the 2D program is 737.5 km. The total number of hectars encompassed by the lines is 590 ha.

We apologize for any inconvenience this may have caused the EISC.

If you have any questions or concerns, please do not hesitate to contact me at the above noted address or at (403) 291-0777, by email at ebradlev@sorel.co or via fax at (403) 291-150.

Regards.

INUVIALUIT ENVIRONMENTAL INC.

Erin Bradley
Project Manager

cc. Hams Arends, Inuvial it Land Administration. Via fax: 867-977-3467
Rudy Cockney, Indian and Northern Affairs Canada. Via fax: 867-777-2090
Rose-Mary Pfeiffer, Chevron Canada Resources. Via fax: 403-254-5152
Rick Turner, National Energy Board. Via fax: 403-292-5876

TABLE 2 SEISMIC LINE SET DETAILS

			Land Ow	nership D	esignation			
Line	Crown ' Length (km)	Area (ha)	7(1)(a) 2 Length (km)	Area (ba)	7(1)(b) 3 Length (km)	Area (ha)	Total Length (km)	Total Area (ha)
CCR-2001-002			11.5	9.2	2.5	2.0	14	11.2
CCR-2001-003			37.2	29.76	9.2	7.36	46.4	37.12
CCR-2001-004	1.7	1.36	50.3	40.34			52	41.6
CCR-2001-005	- "		40	32		-	40	32
CCR-2001-006			53	42.4	•		: 53	42.4
CCR-2001-007	5,7	4.56	16.5	13.2	2.8	2.24 .	. 25	20
CCR-2001-008	1.9	1.52	-18.1	14.48			. 30	16
CCR-2001-009	3.1	2.48	29.2	23.36	0.7	0.56	33	26.4
CCR-2001-010	3.8	3.04	21.7	17.36	. 25	2.0	28	22.4
CCR-2001-011	-	-	·42	33.6			42	23.6
CCR-2001-012	1.0	80.0	34.2	27.36			34.3	27.44
CCR-2001-015			13	10.4	4.0	3.2	17	13.6
CCR-2001-014	1.7	1.36	15.4	12.32	0,9	0.72	18	14.4
CCR-2001-015		-	30.7	24.56	4.3	3.44	35	28
CCR-2001-016	2.8	2.24	30	24	1.2	0.96	34	27.2
CCR-2001-017	2.3 •	1.84	23.8	19,04	1.9	1.52	28	22.4
CCR-2001-018	1	0.8	18.6	14.88	4.4	3.52	24	19.2
CCR-2001-019	4	3.2	34.2	27.36			38.2	30.56
CCR-2001-020	22.3	17,84	16.7	13,36			39	31.2
CCR-2001-021	18.5	14.8	17.1	13.68			33,6	28.48
CCR-200)-022	13.3	10.64	10.7	8.56	-	-	24	19.2
TOTALS	119.5	95.6	5R1.7	465.36	36.3	29.04	737.5	590

¹ Crown Land – Federally canned lands.
² 7(1) a lands – Inuvising connect lands with surface and subsurface rights.
² 7(1) b lands – inuvising connect lands with surface rights only.

201-24

Northwest Territories Education, Culture and Employment

November 10, 2000

R.A. Cockney District Manager

Indian and Northern Affairs Canada

P.O. Box 2100

INUVIK, NT XOE 0TO

By Fax: 867-777-2090

Re: Land Use Permit Application N2000N0054;

Winter Seismic Program - Mackenzie Delta; Chevron Canada

We have reviewed the application and note that numerous archaeological sites have been recorded in the development area. Indeed, from the maps provided in the application, the proposed routes of several seismic lines appear to be drawn directly adjacent to several known archaeological sites.

Consequently we recommend that the proponent be required to undertake the following actions:

- All known archaeological sites within the development area, especially those near seismic lines be marked on seismic maps, and that staff and vehicles be directed to stay a distance of 30 metres away from the site boundaries.
- Furthermore we recommend that the proponent be required to have all development
 areas inspected next summer by a qualified archaeologist holding a valid NWT
 Archaeologists Permit to assess whether or not archaeological sites have been
 impacted, and to recommend and undertake appropriate mitigation measures where
 necessary.
- Finally we recommend that the proponent be directed to proceed cautiously throughout the project, as additional sites are likely to occur within the development area.

Garenment of the Northwest Territories Yellowinitia, NT Carroda X1A 2L9



For your information we have recently issued an NWT Archaeologists Permit to Ms. Elisa Hart, an employee of the Inuvialnit Lands Administration. Ms. Hart is working with several of the companies in the region to ensure that archaeological sites are flagged, and that isolated artifact finds are collected if they are in peril. You may wish to suggest that the proponent contact Ms. Hart with respect to the recommendations above. The proponent should also be aware that any new NWT Archaeologist Permit applications for work on crown land within the Inuvialnit Settlement Region will have be reviewed by the Environmental Impact Screening Committee (EISCI). It will be imperative that they consult with the EISC before applying for a NWT Archaeologists Permit next spring to determine appropriate protocols and timelines.

Regards

Charles D. Arnold.

Director

Culture, Heritage and Languages Division

Prince of Wales Northern Heritage Centre

cc. EISC (867-777-2610)

ILA (\$67-977-2467)

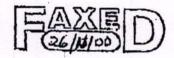
Environment Canada Environnement Canada

Environmental Protection Branch Suite 301, 5204 - 50th Ave Yellowknite NT X1A 1F2 Ph. (867) 669-4700

Nov 25, 2000

Rudy Cackney District Mariager DIAND

Inuvik FAX (867) 777-2090



RE: Review of Project Description for the proposed Chevron Canada Resources Mackenzie Delta Inuvik Block 1&2 Winter Seismic Program, LUP # N2000B0054

Environment Canada (EC) has reviewed the above noted project description and offer the following comments for your consideration.

Line production: In an effort to reduce the line foot print, efforts should be made to restrict the width of the line to the less amount required, it could be assumed that the line width should not exceed the width of the equipment being utilized.

Waste water, sewage and other wastes: As incinolet toilets are being used and the ash generated is being spread out on high dry ground near camp locations or taken to an approved landfill site. Environment Canada recommends that this material be placed in an approved Land fill site. The proponent will already be transporting other material for disposal at an approved land fill site so it offers an opportunity to concentrate this material at one location as well.

Waste water is to be steamed off and sludge hauled to a approved disposal site. EC has no concerns with this.

Solid refuse will be incinerated. This should be used only for non hazardous materials only Hazardous waste such as Waste Oil should be handled in the appropriate manner.

Energy Source Options: The vibra ram option is being proposed and monitoring for resulting pressure wave as requested by Fisheries an Oceans has been identified. Because this techniques relies on natural close back in the hole, Environment Canada would like to see, in the lakes that may be fish bearing, an evaluation of any "Blow Out", (the release of sediments and other material) that may result from the detonation of the tharge.

Cumulative effects: must be given fair consideration as there is a strong likelihood that more activities will be occurring in this area. (eg. seismic, potential well sites, camps, existing producing gas wells, pipeline, etc.). To be able to better understand cumulative effects for this area, appropriate monitoring of the project should be implemented and reported. EC recommends that all activities that were completed for this project such as, but not necessarily limited to, seismic lines, camp locations, water bodies that were utilized for water supply, shooflies locations, be

Final Clean up: has been identified to occur in March -August 2001. Although in other areas of this description it was noted that this would occur while the ground was still frozen. What will actually be conducted during this "Final Clean up". More details are required.

· . .

If you have any question or concerns regarding the above please contact at (867) 569-4733 or Ernall stephen.harbicht@ec.gc.ca.

Sincerely

Stephen Harbicht

Rudy Cockney, District Manager, DIAND Inuvik Email Sevn Behnat, Water Resources, DIAND Yellowknife Email Tod Collard NEB Calgary, Email CC

6.7



FISHERIES JOINT MANAGEMENT COMMITTEE

December 1, 2000

Bill Klassen
Chair, Environmental Impact Screening Committee
P.O. Box 4896
Whitehorse, YT, Y1A 4N6

Dear Bill:

Re: Review of industry proposals before EISC in December 2000

As per my November 2000 letter to you, the Fisheries Joint Management Committee has now tightened its serecting procedures for the review of proposals before EISC that have the potential to impact on fish, marine mammals, and/or aquatic habitat. To compliment the more technical and scientific efforts of our partners at DFO Habitat in Yellowknife, the FIMC will be providing a "common sense" and "environmental sensitivity" perspective in our assessments of industry proposals before Screening.

At our recent regular meeting here in Innvik on November 21-23, the FIMC reviewed seven proposals and has the following "big picture" concerns and comments:

- Until such times as the ongoing Beaufort Sca Integrated Management / Marine Protected Areas pilot process has had a reasonable time frame to review the issue of hydrocarbon exploration and development within 1A beluga management zones and the affected communities have been properly consulted regarding any proposed changes to the Beluga Management Plan (1998), the Fisheries Joint Management Committee continues to support an interim position that there should be absolutely no hydrocarbon exploration or development of any kind within Beluga Management Zones 1A.
- To assist our committee as well as others in assessing cumulative effects, the FIMC would like the BISC to encourage industry proponents to submit electronic maps with their proposals. Joint Secretariat GIS staff could then create and maintain a master industry project mapthat could be regularly updated and made available to all reviewers.

The Joint Secretariat - Inuvialuit Renewable Resource Committees P.O. Box 2120 Inuvik, Northwest Territories, Canada XOE 0T0 el: (867) 777-2828 fax: (867) 777-2610 email: fjmc@jointsec.nt.ca

Andreson Exploration Tuk Peninsula Winter Seismic 2000/01; Chevron Canada's Mackenzie Delta Inuvik Block 1 & 2 Winter Seismic; Petro Carada's Mackenzie Delta Napartok 3D Seismic; Shell Canada's South Kugpik 2D and 3D Seismic; Explor Data Mackenzie River Delta Wintez 2001 Regional Seismic; Arctic Oil & Gas Lucas Point Base Comp; Rescan's Darnley Bay Mini-Bulk Sampling.

- The FIMC is concerned about "post-approval" follow-up by regulatory agencies. With the resurgence of hydrocarbon exploration and development within the ISR, our Committee is doubtful that the Department of Fisheries and Oceans will be able to meet all of their monitoring and site inspection obligations that are so important to the EIA process.
- The FIMC acknowledges the important role played by Inuvialuit Environmental Monitors
 from nearby communities. Given that importance, we would appreciate seeing more detail
 regarding their qualifications and training as well as their reporting relationships.
- Generally, industry submissions to Screening should clearly demonstrate the use of Local Knowledge in making decisions on how they plan to conduct exploration or development in the region.

On behalf of the Committee, thank you for giving the FIMC this opportunity to comment on these proposals before EISC.

Regards,

Robert K. Bell Chair, FIMC

CC Norm Snow, JS Duane Smith, IGC

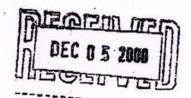
Robert Hornal, EIRB Red Clarke, DFO Jack Mathias, DFO

Ron Allen, DFO



WILDLIFE MANAGEMENT ADVISORY COUNCIL (N.W.T.)

4 December 2000



William Klassen
Chair
Environmental Impact Screening Committee
Box 2120
Inuvik, NT XOE 0T0

RE: Petro-Canada (Kerkhoven), Mackenzie Delta Napartok Seismic Program
Chevron Canada Resources (Williams), Mackenzie Delta Innvik Block 1 and 2
Winter Seismic Program
Anderson Exploration Ltd. (Bolton), Tuktoyaktuk Peninsula Winter 2000/2001
Seismic Program
Shell Canada Ltd. (Harmonic), South Kugpik 2D and 3D Seismic Programs
Explor Data Ltd. (Gregory), Mackenzic River Delta Winter 2001 Regional Seismic
Acquisition Program

Darnley Bay Project: Mini-Bulk Sample Collection

Dear Bill:

In response to the request of the Environmental Impact Screening Committee (EISC) for comments regarding the above submissions to the EISC, we would like to raise the following observations and concerns.

While the Wildlife Management Advisory Council [WMAC(NWT)] recognizes that each of these applications will be reviewed individually by the EISC, the WMAC(NWT) has identified concerns and information gaps that tend to be common to each of the above projects, due to the commonality of the activities and the submissions.

Width of Right of-Way

One exception, with respect to consistency between proposals, is the issue of the width of the right-of-ways. For example, the Shell Canada proposal indicates a 4 metre width on source lines and a 3 metre width on receiver lines. In contrast, the Chevron and Explor Data applications indicate 8 metre lines and Petro-Canada proposes 8 metre source lines and 4.5 metre receiver lines. As these proposals alone (more are inevitably forthcoming) add up to over

The Joint Secretariat - Inuvialuit Renewable Resource Committees 2.O. Box 2120 Inuvik, Northwest Territories, Canada XOE 0T0 tel: (867) 777-2828 fax: (867) 777-2610 email: wmacnwt@jointsec.nt.ca

4300 kilometres of seismic line. It may be worthwhile ensuring that the line width is minimized, particularly through areas of shrub vegetation or black spruce forest. For the purposes of minimizing alternation of habitat it may be worthwhile for the companies to be considering low-impact / helicopter-supported techniques which can be done without cut lines or lines that are less than 2 metres in width.

Impacts to Permafrost and Vegetation

Reference to the impacts on vegetation and permafrost are very sparse in the applications. Given that there are old lines in the area and that there is information available in the literature the proponent should answer questions such as: Are minigations in place for permafrost protection effective? Do bulldozed willows actually grow back? If they do, how long does it take to happen? Will grasses and sedges dominate in some areas where trees and willows were removed (as witnessed at some other places in the Mackenzie Delta. Long-term and cumulative effects of all the seismic and oil/gas activity in the Delta should be assessed.

The descriptions of the vegetation are inadequate and not always applicable to the specifically affected areas. Good information on the plant communities of the Delta is available (eg. Don Gill and his colleagues during the 1970s). That data should be reviewed and incorporated into the proposals.

The areas currently being explored in the Delta were also the subject of significant exploration activity in the 1970s. The proponents suggest that "anrubby vegetation will be rolled over on seismic lines rather than cleared to accommodate natural regeneration" and "Natural revegetation of rights-of-way will be promoted by avoiding disturbance of root zones". These mitigative measures make sense but an assessment of how long natural regeneration takes, even with these measures is needed. What techniques were used in previous exploration programs and how well have the seismic lines of the 1970s regenerated? If there remain significant differences in vegetation composition and structure, then it could be argued that the cumulative effects assessment for these projects should include previous seismic and exploration activity. It has been demonstrated in other areas, that once cut lines are established, they provide travel corridors for sky doos and ATV access: Travel on these corridors retards or prevents shrub regeneration.

Proponents should be required to show a commitment to land reclamation and re-vegetation programs in their respective affected areas. Past experience in these practices in the region should be reviewed and built upon. The Department of Resources, Wildlife and Economic Development (RWED) currently have a significant supply of native seedlings that could be purchased by proponents for re-forestation purposes.

Avoiding Bear Dens

It is not clear how the seismic operations will avoid bear dens. There are few, if any, external indicators of a den site during the winter. Although dens may not be common in the Delta area, there is still the possibility of a seismic operation encountering a den site - especially when conducting a 3D seismic program. Therefore, there needs to be a strategy in place to allow the bear to return to the den and avoid further disturbance. Is a proponent willing to forfeit a

1-80(-003-2(10 1-432 F.10/13 JUD-42

segment of a seismic line for the sake of a bear?

Birds

The proposals have ignored mentioning a number of bird species that rely on the Delta. The fact that the birds are not present during winter activity does not imply that these populations will not or could not be impacted by seismic activity. The potential loss of breeding habitatboth on a project-by-project basis and cumulatively is not insignificant. There is little information on breeding terrestrial and shorebird densities in the area although in other parts of the low arctic that are less productive than the Delta one can probably expect at least 100 birds per km². However, there is good information on the numbers of waterfowl in the Mackenzie Delta, dating back to the 1970s. This should be reviewed and cited. A good reference to start with on birds would be Birds of the Beaufort Sea, by Johnson and Herter (1989).

Increased Access and Air Traffic

The above submissions do not address the inevitable increased access to land and resources that results from the clearing of vegetation. What would be the implications from hunting pressure on game animals? How will predator-prey relationships be affected by the habitat fragmentation?

The submissions fail to address the exponential growth in air traffic that will occur in the Delta this winter. How much air traffic does each proponent anticipate for their respective operations? What steps are being taken to minimize impacts to air quality, wildlife, harvesters and camp owners?

Disturbance to Wildlife

Apart from simply mentioning the existence of wildlife species in the region, the applications devote very little attention to the effects of increased human activity on wildlife. A great deal of literature has addressed the issues of displacement and disturbance to wildlife, due to seismic activity. Proporents should make a great effort to demonstrate that they are familiar with those data, and that they have taken all possible steps to minimize displacement, disturbance or accidental kills.

In general, proponents have not taken advantage of the most up-to-date information available on wildlife and wildlife habitat. In some cases, such as Explor Data's application, they have failed to identify current data to demonstrate that every precaution has been taken, based on best available data.

Explosive Charges vs. Vibroseis

Most of the applications indicate that the majority of the seismic studies will be conducted with explosives rather than Vibroscis technology. Considering that proponents have identified the Vibrosels technology as being the favourable approach, with respect to minimizing environmental impacts, why is explosive technology clearly the preferred choice in most of these operations?

Proponents have stated that current technology has made great progress in reducing

environmental impacts in seismic programs. What are these improvements? What advancements have been made with respect to the practice of explosive charges? Will today's techniques produce a smaller footprint than previous programs that took place in this region? If so, in what way? Can today's footprint be smaller, considering that some of the seismic work will be 3D? What are the potential impacts of explosives on permafrost? Given the concerns raised in communities regarding climate change, will having so many holes in the ground result in more slumping?

Sharing Data and Avoiding Redundancy

The regeneration process of the arctic ecosystem is extremely slow. Seismic lines that were cut over three decades ago remain easily detectable on the landscape. Therefore the proponent should be required to demonstrate that old seismic data is insufficient. In the interests of habitat protection, proponents must be willing to share data with competitors whenever feasible. The submissions to the EISC have not demonstrated that these alternatives have been genuinely considered.

End Dates

Project time lines are vague in description. Understandably, a proponent requires some flexibility in their scheduling. However, if no specific date is going to be included, the proponent should include a statement that ensures that the project will be wound up before spring, in order to avoid accelerating the return of migratory birds, and to prevent premature melting of the ground surface. The impacts associated with "winter seismic" vs. "spring seismic" programs are quite different, with spring seismic impact being more complicated and potentially more significant.

Clean-Up and Follow-Up

Impacts to wildlife and wildlife habitat do not necessarily occur immediately or within the brief time frame of a project. Therefore a clear plan must be laid out by the proponent (with input from the various communities and regulatory bodies) that outlines a suitable level of clean-up, reclamation and long-term monitoring.

Cumulative Effects

Considering the number of applications for seismic programs that have been submitted to the EISC in recent months, there has been a lack of effort on the part of the proponents to explain what environmental and socio-economic effects will arise from the concurrent exploration activities in the region. The submissions inadequately address this complex issue.

Proponents must show a commitment, from the outset that they will work cooperatively with other proponents, communities, harvesters, wildlife managers and researchers to acquire the data to properly gauge the cumulative effects, and ultimately set threshold levels.

Given that a sub tantial amount of seismic activity is likely to occur in a short space of time and in a concentrated geographic area, it must be the responsibility of all the proponents to identify how redundancy can be avoided. Developers should use common seismic lines and access routes whenever possible. Proponents must be able to justify why adjacent seismic projects are

JAN-US-UI 14:45 From: DIANU WATER RESOURCES

not compatible for sharing lines and access routes.

Mitigative Measures

Each of the submissions to EISC have identified some issues and suggest mitigative measures in response to those issues. However, none of the applications attempt to demonstrate that these measures have proven to be effective in past cases.

Darnley Bay Project: Mini-Bulk Sample Collection

Clarification is needed of the following points from this application:

 recognizing that the proponent's time line is dependent on their economic situation, it would nevertheless be helpful to regulatory bodies to have a more specific window of activity, rather than the two-year request;

pg. 7: the proponent states that "It is estimate (sie) the mini bulk sampling would begin in

April of 2000". Is this supposed to say "2001" instead of "2000"?

 one of the possible methods mentioned by the proponent for the transportation of the bulk sample is by tractor train method. It is unclear if this method would be used during periods with or without snow cover. The proponent should be required to transport the samples during the winter, when impacts to the land surface can be minimized.

Additional comments and observations:

Community Conscruation Plans

The WMAC(IWI) continues to endorse the recommendations of the Community Conservation Plans and encourages the EISC to assess each application within the context of those documents. Management categories should be respected.

Screening Process

There are a couple of obstacles that face the WMAC(NWT) and other advisory bodies, as we attempt to consider the potential environmental and cumulative environmental effects of these projects. Firstly, the process is naturally designed to scope projects on a case-by-case basis, which works contrary to addressing cumulative effects. Secondly, the proponents' timetable has no relationship to the timetable of the regulatory bodies and managers. Advisory bodies like the WMAC(NWT) are usually notified of a proponent's project description within weeks of the desired start date. As a result, advisory bodies are left to merely speculate on potential impacts, without having the time to gather and review available data that could provide insight to threshold levels. This quandary is not unique to these projects or to the assessment process in any given jurisdiction. It is an unfortunate predicament, but perhaps it can be tempered through a precantionary principle, good planning and a healthy cooperative approach. It would be useful to explore the possibility of setting to a cumulative effects committee, with participation from each of the stakeholders. This committee could be responsible for gathering and assessing current data, identifying future escarch priorities, and ultimately recommending threshold levels.

The WMAC(NWT) has attempted to raise a number of issues and questions in this statement, not all of which can be answered adequately with our current knowledge. Nevertheless, they do represent information gaps that need to be acknowledged and explored further. Preferably, by gaining this knowledge sooner rather than later, ecological thresholds will not be exceeded.

Thank you for the opportunity to comment. If you have any additional questions, do not he sitate to contact me.

Sincerely,

Larry Carpenter

Chair

WMAC(NWT